

Side Yard Rain Garden Explanation

The project area is 470 square feet of an irregularly shaped, sloped side yard in an established urban neighborhood. The area is currently mowed with a push reel, a gasoline mower, and an electric weed trimmer by the two neighbors. The current plantings include creeping euonymus, liriope, sweet pea, daylilies, bearded iris and lawn. The soil condition is an urban alkaline clay soil with a thin humus layer. The slope of the yard (12%) indicates potential for erosion.

The solution is to use the slope as a way to create momentary pools of water in a rain garden that slows the runoff with vegetation, rock dams, and small vertical drain pipe. The cross section shows how water slows down due to the vegetation and ponds behind the rocks. If it is a significant rainfall, the pooling water will come up over the lip of the vertical drain pipe to allow for water storage and greater infiltration thus decreasing runoff. If there is still enough water, it will spill over to the next dam then the next.

The success of the rain garden is partly based on dense vegetation. This is due to the texture of the leaves, which slows the water concentration and allows the roots to absorb more water for growth. Native plants tend to have a deeper root system and therefore are less susceptible to temporary drought conditions. The remaining lawn is used for both homeowners to walk between their front and back yards. Those areas will be able to be maintained with an electric weed trimmer.